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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,200

03/24/2006

Shinya Tokumaru

Q93850

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23373 7590 10/02/2008  
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EXAMINER

GREENE, JASON M

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

10/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,200	<b>Applicant(s)</b> TOKUMARU, SHINYA	
	<b>Examiner</b> Jason M. Greene	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/24/06;6/26/06;12/20/06;3/19/08</u> .                        | 6) <input type="checkbox"/> Other: ____.                          |



## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kotani et al. (US 5,629,067).

Kotani et al. discloses a ceramic honeycomb filter (see col. 8, lines 48-52) comprising a sintered ceramic honeycomb body (14) having porous partition walls (4) defining flow paths, and plugs formed in predetermined flow paths for removing particulate matter from an exhaust gas passing through the porous partition walls, the sintered ceramic honeycomb body being made of cordierite, and at least part of the plugs (16) comprising ceramic (cordierite, see Tables 1, 2 and 4) particles and an amorphous oxide matrix formed from colloidal oxide (colloidal silica or colloidal alumina, see Tables 1, 2 and 4), wherein the ceramic particles are pulverized powder of the

Art Unit: 1797

same material (cordierite) as the sintered ceramic honeycomb body in Figs. 1-5 and col. 4, line 66 to col. 14, line 67.

3. Claims 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 63-24731 B.

JP 63-24731 B discloses a method for producing a ceramic honeycomb filter comprising a sintered ceramic honeycomb body having porous partition walls defining flow paths, and plugs formed in predetermined flow paths for removing particulate matter from an exhaust gas passing through the porous partition walls, comprising the steps of forming the sintered ceramic body by a cordierite-based ceramic material, and heating a plugging material filled in predetermined flow paths of the sintered ceramic honeycomb body to a temperature of 55 °C to form plugs bonded to the sintered ceramic honeycomb body, wherein the plugs are formed by a plugging material comprising ceramic (mullite) particles and alumina cement in Ex. 3. Applicants discuss the JP 63-24731 B reference in paragraphs [0009]-[0010] of the instant specification.

4. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Kotani et al. (US 5,629,067).

Kotani et al. discloses a plugging material comprising ceramic particles (cordierite) and colloidal oxide (colloidal silica or colloidal alumina) in Figs. 1-5 and col. 4, line 66 to col. 14, line 67.

Art Unit: 1797

5. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Wood et al. (US 2004/0231307 A1)

Wood al. discloses a plugging material comprising ceramic particles (alumina and SiC) and colloidal oxide (colloidal alumina) in paragraph [0129].

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-24731 B in view of Kotani et al. (US 5,629,067).

JP 63-24731 B does not teach the plugging material comprising colloidal oxide, but Kotani et al. teaches a similar plugging material wherein the inorganic binder is colloidal silica or colloidal alumina in Figs. 1-5 and col. 4, line 66 to col. 14, line 67. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the colloidal silica or colloidal alumina of Kotani et al. for the alumina cement of JP 63-24731 B in that such are known alternative inorganic binders in plugging materials, as suggested by Kotani et al. in Table 1 and col. 15, lines 36-37.

Art Unit: 1797

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-24731 B in view of Kuki et al. (US 7,008,461 B2).

JP 63-24731 B does not teach the ceramic particles being pulverized powder of the same material as the sintered ceramic honeycomb body, but Kuki et al. teaches a forming a plug material wherein the primary component is the same as the sintered ceramic honeycomb body so that the coefficients of thermal expansion coincide in col. 7, lines 5-12.

9. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (US 2004/0231307 A1) in view of JP 63-24731 B.

Wood et al. discloses a ceramic honeycomb filter comprising a sintered ceramic honeycomb body (10) having porous partition walls defining flow paths, and plugs formed in predetermined flow paths for removing particulate matter from an exhaust gas passing through the porous partition walls, and at least part of the plugs comprising ceramic (alumina and SiC) particles and an amorphous oxide matrix formed from colloidal oxide (colloidal alumina), in Figs. 1- and paragraph [0129].

Wood et al. does not teach the sintered ceramic honeycomb body being made of cordierite, but JP 63-24731 B teaches cordierite being a well known ceramic material for forming sintered ceramic honeycombs.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Kuki et al. '848, Kirk et al. and Beall et al. references disclose similar honeycomb filters.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Application/Control Number: 10/573,200

Page 7

Art Unit: 1797

Jason M. Greene  
Primary Examiner  
Art Unit 1797

/Jason M. Greene/  
9/29/08

jmg  
September 29, 2008